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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/331,501      | 09/27/1999  | Ole Mathiasen        | 196-1187            | 1749             |

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EXAMINER

LAM, THANH

ART UNIT PAPER NUMBER

2834

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/331,501

Applicant(s)

Mathiassen

Examiner

Thanh Lam

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on RCE 1/16/2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-36 and 38-40 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-23, 26-36, and 38-40 is/are rejected.
- 7) ☒ Claim(s) 24 and 25 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 21-23,26-36, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padoan in view of Staats (pn. 5,029,256).

Padoan discloses an electric motor comprising a stator having a bore (12) in which a rotor (col. 3, lines 13-14) is located, and having a control arrangement connected to the motor, the control arrangement having at least one coil (C) with a core (5), the core of the coil being located on the stator, and the stator comprising iron, the iron being used for a magnetic circuit for the coil.

Staats discloses a coil being located between a rectifier (37) and an inverter (41) of the control arrangement and being loaded by D.C current of the motor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the coil of the control arrangement of Padoan to accommodate the coil arrangement as taught by Staats to improve the output torque of the motor.

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Regarding claim 22, the proposal in combination of Padoam and Staats disclose the core is a part of the stator.

Regarding claim 23, the proposal in combination of Padoam and Staats disclose a flux restriction (23) separates the magnetic flux of the coil on one side and magnetic flux of the stator on the other side.

Regarding claim 26, the proposal in combination of Padoam and Staats disclose the core only extends over a part of the axial length of the stator.

Regarding claim 27, the proposal in combination of Padoam and Staats disclose the stator has a substantially rectangular cross section and the coil is located in a corner of the cross section.

Regarding claim 29, the proposal in combination of Padoam and Staats disclose the stator is formed with imitated sheets.

Regarding claims 28- 30, the proposal in combination of Padoam and Staats disclose a motor in an axial direction (X) of the stator consist of at least two different types of laminated sheet plates (5' and 19') having different shapes, of which one has no core (5') forming area.

Regarding claim 31, the coil is fitted on a coil carrier shaped to be pushed onto the core.

Regarding claim 32, the proposal in combination of Padoam and Staats disclose the core is substantially oriented in a radial direction.

Regarding claims 33-34, the proposal in combination of Padoam and Staats disclose the core is located in volume in the stator, which volume is closed by a cover (19) welded on the stator.

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Regarding claim 35, the proposal in combination of Padoam and Staats disclose the stator has longitudinal outer sides, and the core of the control arrangement is substantially parallel to one of the outer sides of the stator.

Regarding claim 36, the proposal in combination of Padoam and Staats disclose the core of the control arrangement is offset inwardly from the outer side.

Regarding claim 38, the proposal in combination of Padoam and Staats disclose the motor including several coils, each coil having its own core.

Regarding claim 39, the proposal in combination of Padoam and Staats disclose at least two of the coils are part of a function coil from the intermediary circuit coil or a motor coil.

Regarding claim 40, the proposal in combination of Padoam and Staats disclose the motor in which the coils are at least two different function coils from the intermediary circuit coil or a motor coil.

***Allowable Subject Matter***

3. Claims 24-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 24-25, none of the cited arts disclose the flux restriction comprises one hold in the stator, the hold is filled with a non magnetically conducting material, and including a cooling medium.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Lam whose telephone number is (703) 308-7626. The fax phone number for this Group is (703) 305-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0656.

A handwritten signature in black ink, appearing to read 'Thanh Lam'. The signature is written in a cursive, flowing style with a long horizontal stroke extending to the left.

Thanh Lam

Patent Examiner